



## Malawi Watershed Services Improvement Project (P167860)

AFRICA EAST | Malawi | Water Global Practice |  
IBRD/IDA | Investment Project Financing | FY 2020 | Seq No: 3 | ARCHIVED on 28-Sep-2021 | ISR47875 |

Implementing Agencies: Ministry of Forestry and Natural Resources, Republic of Malawi

### Key Dates

#### Key Project Dates

Bank Approval Date: 19-Jun-2020

Effectiveness Date: 21-Dec-2020

Planned Mid Term Review Date: 19-Jun-2023

Actual Mid-Term Review Date:

Original Closing Date: 31-Jul-2026

Revised Closing Date: 31-Jul-2026

### Project Development Objectives

Project Development Objective (from Project Appraisal Document)

Increase adoption of sustainable landscape management practices and improve watershed services in targeted watersheds

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

### Components Table

Name

Scaling up Landscape Restoration:(Cost \$53.00 M)  
Improving Watershed Services:(Cost \$82.00 M)  
Technical and Project Management Support:(Cost \$25.00 M)

### Overall Ratings

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Satisfactory
Overall Implementation Progress (IP)	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Moderately Satisfactory
Overall Risk Rating	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate

### Implementation Status and Key Decisions

The project has generally made progress over the past six months as implementation continues to improve; however, some key activities are behind schedule and the impact of Covid-19 related constraints have been a significant factor. Progress across components is as follows:

**Component 1: landscape restoration:** Most preparatory activities under this component are going as planned. Under Catchment and sub-catchment planning, the project conducted briefing sessions, reviewed and updated Catchment Management Plans for two district councils (Blantyre and Zomba). Five other Catchment Management Plans were drafted and submitted to the Ministry of Justice and Constitutional Affairs. The project has also started to develop a manual for the Performance-Based Grants for establishment of productive forestry. Similarly, Farmer Field Schools trainings were conducted in five districts. Land Registry offices were Identified in three districts (Zomba, Ntcheu and Blantyre) and assessed maps printed.

**Component 2: Improving Watershed services and Institutions:** The National Water Resources Agency (NWRA) is still working to meet the prerequisites and indicators as agreed for the Performance-Based Grants (PBG) to Selected Watershed Management Institutions, however



progress is behind schedule. The project finalized the development of ToRs for a consultant to review existing designs, construction supervision, and Water Users Associates (WUA) establishment of irrigation schemes established in a previous World Bank project.

**Component 3: Technical and Project Management Support:** Reasonable progress has been recorded under this component in the last six months. The independent verifier is on board, staffing of the PMU with core members is completed, and rehabilitation of two office blocks and construction of new office block is underway. The development of an integrated M&E and Management Information System (MIS) to serve the two projects (MWSIP and MRDRMP) is initiated. A financial management software system (TOMPRO) is now in use. Procurement of 12 Motor Vehicles has been completed. The project has also prepared and submitted its Annual Workplan and Budget for the 2021/2022 fiscal year. Key actions to be addressed moving forward include, completing manuals for performance-based grants for forestry, agriculture and livelihood activities and designating an Executive Director for the National Water Resources Authority.

## Risks

### Systematic Operations Risk-rating Tool

Risk Category	Rating at Approval	Previous Rating	Current Rating
Political and Governance	☐ Substantial	☐ Moderate	☐ Moderate
Macroeconomic	☐ Substantial	☐ Substantial	☐ Moderate
Sector Strategies and Policies	☐ Moderate	☐ Low	☐ Low
Technical Design of Project or Program	☐ Substantial	☐ Moderate	☐ Moderate
Institutional Capacity for Implementation and Sustainability	☐ Substantial	☐ Moderate	☐ Moderate
Fiduciary	☐ Substantial	☐ Substantial	☐ Substantial
Environment and Social	☐ Substantial	☐ Substantial	☐ Substantial
Stakeholders	☐ Substantial	☐ Moderate	☐ Moderate
Other	--	☐ Moderate	☐ Moderate
Overall	☐ Substantial	☐ Moderate	☐ Moderate

## Results

### PDO Indicators by Objectives / Outcomes

Increase adoption of sustainable landscape management practices				
► Proportion of target farmers adopting sustainable landscape management practices (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	70.00
Date	30-Jun-2020	11-Sep-2020	13-Aug-2021	31-Jul-2026
Comments:	This indicator measures the adoption rate for sustainable landscape management practices. For purposes of this project, sustainable landscape management practices refer to a combination of at least two			



technologies or practices (agronomic, vegetative, structural, and management measures) applied to improve land quality and prevent degradation and/or restore already degraded landscape. The suite of technologies and practices appropriate to the Malawian context are described in the National Catchment Management Guidelines and Manual. These include physical soil and water conservation techniques (e.g. marker and contour ridges, ridge alignment, box ridges, water harvesting, infiltration ditches, gully plugs, check dams, etc); vegetative river/stream-bank restoration; agricultural technologies (i.e., agroforestry, farmer-managed natural regeneration), community forestry and woodlots and plantation forestry. Adoption refers to a change of practice or change in the use of a technology or practice promoted or introduced by the project. For purposes of this project, a farmer will be counted as an adopter if he/she practices at least two technologies or practices on agricultural land for at least three consecutive farming seasons or any other technology on other land-use types.

► Land area under sustainable landscape management practices (Hectare(Ha), Corporate)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	95,000.00
Date	18-Dec-2019	11-Sep-2020	13-Aug-2021	31-Jul-2026

Comments: The indicator measures, in hectares, the land area for which new and/or improved sustainable landscape management practices have been introduced. Land is the terrestrial biologically productive system comprising soil, vegetation, and the associated ecological and hydrological processes; Adoption refers to change of practice or change in the use of a technology promoted or introduced by the project; Sustainable landscape management (SLM) practices refers to a combination of at least two technologies and approaches to increase land quality and restore degraded lands for example, agronomic, vegetative, structural, and management measures that, applied as a combination, increase the connectivity between protected areas, forest land, rangeland, and agriculture land.

► Land area showing an increase in Normalized Difference Vegetation Index (NDVI) and the Land Surface Water Index (LSWI), correcting for short-term climate effects (Hectare(Ha), Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	50,000.00
Date	30-Jun-2020	11-Sep-2020	13-Aug-2021	31-Jul-2026

Comments: This indicator captures the results of the adoption of SLM practices in the target watersheds by measuring the increase in vegetation cover corrected for short-term weather effects (e.g. prolonged dry period) through the NDVI and in soil water content through LSWI. The NDVI uses the visible and near-infrared bands of the electromagnetic spectrum to analyze remote sensing measurements to determine the extent to which a target contains live green vegetation. LSWI uses the shortwave infrared and near-infrared bands of the electromagnetic spectrum to analyze remote sensing measurements (based on satellite imagery data) to determine the amount of water in vegetation and soil. The increase in NDVI and LSWI for a given micro watershed to count towards the target for this indicator should be at least 10%, correcting for short-term weather effects.

Improve watershed management services

► Number of people gaining access to water for productive use (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	42,000.00
Date	30-Jun-2020	11-Sep-2020	13-Aug-2021	31-Jul-2026

Comments: This indicator measures improved access to water for productive use as a result of investments in enabling watershed infrastructure. Water for productive use means using water for irrigation, livestock,



	fisheries, and water for small-scale processing. Access means water is either delivered at the point of production or is within 250m from the point of production for the case of water for livestock.			
	► Proportion (%) of target farmers benefiting from an increase in production sold to the markets and/or an increase in income from marketed products (Percentage, Custom)			
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	50.00
Date	19-Dec-2019	11-Sep-2020	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the share of target farmers benefiting from an increase in products (agricultural, aquaculture, forest-based) sold to the markets and/or an increase in income from marketed products, as a result of project interventions			

### Intermediate Results Indicators by Components

Scaling up Landscape Restoration				
	► Agricultural land area with soil and water conservation measures (Hectare(Ha), Custom)			
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	30,000.00
Date	30-Jun-2020	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the area of cropland where soil and water conservations have been applied. Soil and water conservation measures include marker and contour ridges, ridge alignment, box ridges, water harvesting, infiltration ditches, gully plugs, check dams, etc			
	► Land area with improved agricultural technologies applied (Hectare(Ha), Custom)			
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	25,000.00
Date	30-Jun-2020	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the adoption of improved agricultural technologies promoted by the project, including conservation agriculture, agro-forestry, farmer-managed natural regeneration etc.			
	► Forest area restored, reforested or under improved management (Hectare(Ha), Custom)			
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	35,000.00
Date	30-Jun-2020	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the area of natural forest restored, reforested or under improved management; and area under productive plantation forestry management			
	► Area of vegetative riparian buffer established along major rivers and streams in the targeted watersheds (Hectare(Ha), Custom)			



	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	5,000.00
Date	30-Jun-2020	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the area of vegetative riparian buffer established along major rivers and streams in the targeted watersheds			
<b>► Proportion of households within targeted catchments engaged in SLM practices (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	80.00
Date	18-Dec-2019	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the proportion of households within targeted catchments who are engaged in SLM practices. A household will be counted towards this indicator if it is engaged in at least two technologies or practices introduced or promoted by the project			
<b>► Yields of selected agricultural commodities supported by the project (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	70.00
Date	19-Dec-2019	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the increase in agricultural productivity among farmers supported by the matching grant program.			
<b>► Number of female farmers benefiting from an increase in production sold to the markets or an increase in income from marketed products (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	5,000.00
Date	19-Dec-2019	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the number of female farmers benefiting from an increase in products (agricultural, aquaculture, forest-based) sold to the markets or an increase in income from marketed products, as a result of project interventions			
<b>► Proportion of project beneficiaries that are satisfied with the services provided under the project (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	75.00
Date	19-Dec-2019	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks beneficiary satisfaction with the services provided under the project			
<b>► Number of female farmers gaining tenure security through land certification (Number, Custom)</b>				



	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	6,500.00
Date	30-Jun-2020	19-Feb-2021	13-Aug-2021	31-Jul-2025
Comments:	This indicator tracks the number of female farmers gaining tenure security through the land registration activities supported by the project.			

Improving Watershed Services				
<b>► Average performance score for project-supported watershed management institutions (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	60.00
Date	30-Jun-2020	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the annual average performance score for project-supported watershed institutions on their performance scorecards			
<b>► Number of farmers receiving payments under the pilot Payment for Watershed Services (PWS) scheme (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	30,000.00
Date	19-Dec-2019	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the number of farmers receiving payments under the pilot PWS scheme			
<b>► Percentage reduction in sediment yield in selected Shire river tributaries (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	20.00
Date	18-Dec-2019	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the reduction in sediment yield in the Shire River tributaries targeted under the PWS scheme			
<b>► Number of multiple-use water sources developed (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	38.00
Date	30-Jun-2020	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the number of multiple-use water sources developed under the project. Multiple-use water sources include small to medium scale dams, rainwater harvesting structures, high yielding boreholes, and associated conveyance infrastructure			



► Area provided with new/improved irrigation or drainage services (Hectare(Ha), Corporate)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	2,400.00
Date	19-Dec-2019	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator measures the total area of land provided with irrigation and drainage services under the project, including in (i) the area provided with new irrigation and drainage services, and (ii) the area provided with improved irrigation and drainage services, expressed in hectare (ha).			
► Farmers receiving agro-weather information services (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	8,000.00
Date	30-Jun-2020	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks the number of farmers receiving agro-weather information services.			

Technical and Project Management Support				
► A biophysical and ecological monitoring system developed and used (Text, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	There is no system in place for monitoring biophysical and ecological changes in the targeted watersheds	Draft terms of reference have been prepared for consultancy services to develop and operationalize the system.	Draft terms of reference have been prepared for consultancy services to develop and operationalize the system.	Biophysical and ecological monitoring system implemented in at least 30 sub-catchments in the project area
Date	30-Jun-2020	19-Feb-2021	13-Aug-2021	31-Jul-2026
Comments:	This indicator tracks progress on key milestones for the establishment and use of a biophysical and ecological monitoring system. A biophysical and ecological monitoring system is a GIS-based information system that is able to systematically capture, analyze, and visualize spatially-referenced data on biophysical and ecological changes occurring in a watershed as a result of project interventions. The system must be able to capture, analyze and visualize spatially-referenced data on the several biophysical, ecological and ecosystem parameters, including but not limited to: tree/vegetation cover, soil depth, soil fertility, soil erosion, soil moisture, sediment yields, groundwater levels, surface water quality, biodiversity, etc. The system must also be able to track key project indicators such as SLM adoption rates, land area under SLM, as well as data on improvements in watershed services supported under the project. The system will be considered implemented if at least the baseline biophysical and ecological data from the 10 sub-catchments has been entered in the system.			

**Performance-Based Conditions**

**Data on Financial Performance**



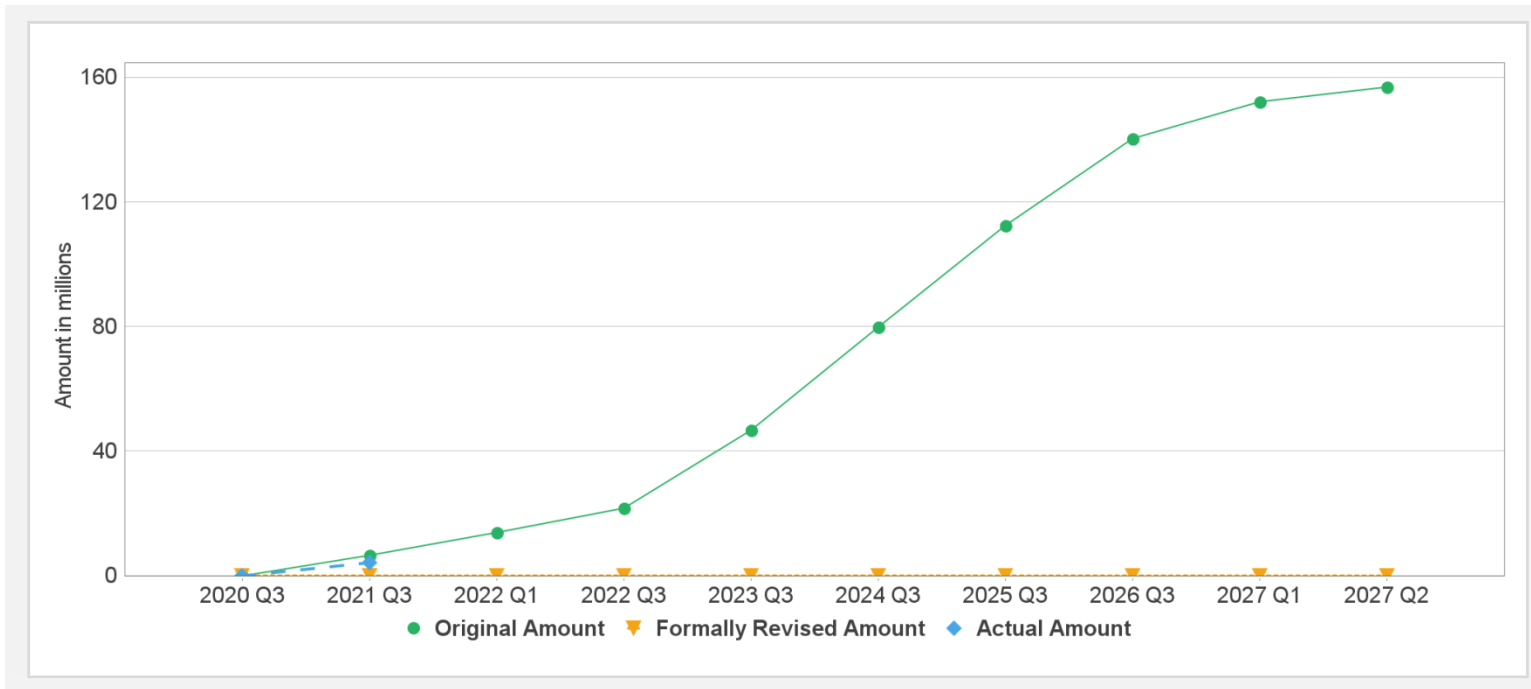
**Disbursements (by loan)**

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P167860	IDA-65790	Effective	USD	78.50	78.50	0.00	2.42	79.07	3%
P167860	IDA-D5860	Effective	USD	78.50	78.50	0.00	2.42	79.07	3%

**Key Dates (by loan)**

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P167860	IDA-65790	Effective	19-Jun-2020	05-Nov-2020	21-Dec-2020	31-Jul-2026	31-Jul-2026
P167860	IDA-D5860	Effective	19-Jun-2020	05-Nov-2020	21-Dec-2020	31-Jul-2026	31-Jul-2026

**Cumulative Disbursements**



**PBC Disbursement**

PBC ID	PBC Type	Description	Coc	PBC Amount	Achievement Status	Disbursed amount in Coc	Disbursement % for PBC
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### **Restructuring History**

There has been no restructuring to date.

### **Related Project(s)**

There are no related projects.

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